

ON REPTILES COLLECTED BY DR. GEO. BAUR
NEAR GUAYAQUIL, ECUADOR.

BY S. GARMAN.

THOUGH it contains but few types, this collection is of interest because of the means it affords for determining a number of individual variations, and for perfecting to some extent several of the original descriptions, and also for reducing the number of nominal species. The specimens were secured either in the immediate vicinity of Guayaquil or, along or off the coast, on the way from that city to the Galapagos Islands.

PELAMIS PLATURA Linn. ; Garm.

Four specimens of this sea snake were taken opposite Santa Helena. The first has 53 scales in a row around the body near the middle, nineteen of them being included in the black color of the back. In a row from the chin to the tip of the tail there are 344 on the body, and 52 on the tail. Around the middle of the tail there are 27 rows. On each side of the head a large anteorbital reaches from the prefrontal to the lower of the two postorbitals. None of the labials reach the orbit.

On the second there are 56 scales in a row around the middle of the body ; and in a line from the chin to the end of the tail there are 355 scales on the body, and 48 on the tail. Seventeen of the scales around the body are in the

black. In this case there are two anteorbitals on each side, the lower one extending between the orbit and the labials to the lower of the two postorbitals. In the middle of the yellow color of the flank a black band passes back from the lower jaw over more than one-third of the length; behind this it becomes a series of large spots; and these latter, toward the tail, extend downward to the median ventral line and join the spots from the opposite side to form transverse bands.

The third example has 53 rows, nineteen of them in the black, and in the ventral series has 340 on the body, and 45 on the tail. On one side of its head there is one anteorbital, which is separated from the lower of the two postorbitals by the fifth labial. On the other side there is a single postorbital; this is separated from the lower of the two anteorbitals by the fifth labial. There are eight labials, of which the fourth is small and crowded under the third and fifth. Infralabials 11-12.

The fourth individual has 53 rows of scales, seventeen of them black; and in the ventral series there are 351 on the body, and 49 on the tail. It has two anteorbitals on one side, the lower one united with the fourth labial and extended below the eye to the lower of the two postorbitals. On the other side it has two ante- and two postorbitals, with a large suborbital between the eye and the labials.

Only one of the four specimens has black in the yellow of the flank. On two of them the black of the back is regular in its lower margin to the base of the tail, where it breaks into rounded blotches which descend on the sides and alternate with others extending up from the lower edge of the tail. On the other two the black of the back becomes sinuous in its lower edges, not far from the middle of the body, and breaks up on the tail, where scattered small spots of black appear.

LEPTODEIRA ANNULATA Libn. ; Fitz.

Considerable individual variations are shown by the eleven specimens in the collection. Six have 21 dorsal rows; five have 23. The scutes range from 185 to 194, averaging about 189. The average of the subcaudals is nearly 82, the range being from 72 to 90. The normal number of labials is eight, on one side of each of two specimens there are nine. There are ten infralabials; on both sides of one specimen and on one side of each of two others there are eleven. Normally there are two ante- and two postorbitals, and the fourth and fifth labials enter the orbital ring. On one side of one specimen there is a single anteorbital and the third, fourth and fifth labials enter the orbit; and on both sides of another there are three postorbitals, while on one side of the same specimen there are three anteorbitals. The dorsal blotches vary from 40 to 54 on the body, averaging about 45; and those on the tail range from 17 to 25, with an average of about 22. On some the dorsal blotches are transverse, undivided on the median line; on others they seem to be divided above the vertebræ and alternated and joined in such a manner as to form a sinuous line, crossing back and forth from side to side of the dorsum for a considerable extent of the entire length. In young stages the ground color is much lighter and the spots are more distinct. The scales have two pores; anal and subcaudal scutes are divided.

HERPETODRYAS BRUNNEUS Gthr.

Rows 17, pores 2, scutes 155 + 122, and 154 + 131, anal and subcaudals divided; labials 9, infralabials 10, a loreal, one anteorbital, postorbitals 2, three on one side of one specimen, fourth to sixth labials in the orbital ring. The length of one is $11\frac{1}{2} + 6\frac{5}{8}$, and of the other $19\frac{1}{2} + 13$ inches.

On the younger the light vertebral space is more distinct, as also the narrow bands of darker at each side of it, in which there are small black spots. On the larger the color is a darker olive in which many of the scales are tipped with black. Nine of the dorsal rows are keeled.

HERPETODRYAS RETICULATUS Pet.

A young specimen with 17 rows of scales, 186 ventral scutes, a divided anal, and a mutilated tail. Labials 9, infralabials 10, one anteorbital, postorbitals 2. The fourth to the sixth labials are in the orbital series. To the base of the tail there are 82 blotches. Ventral surface without black spots; no white spots or white-edged scales on flanks or back. In the quadrangular blotches of the back the central portions are lighter, as also of the scales. This form is evidently closely allied to *H. Rappii* of Günther.

CONIOPHANES SIGNATUS sp. n.

Body slender, elongate, slightly depressed. Head little wider than neck, crown flattened, snout moderately pointed, loreal region concave. Scales smooth, lustrous, elongate, poreless, in 19 rows around the middle of the body. Ventral scutes 132, anal and subcaudals bifid, tail mutilated. Rostral not bent back on the snout. Internasals not half as large as prefrontals, broader than long. Prefrontals large, broad, bent down to the loreal. Nasals two, loreal as high as long, labials 9, fourth and fifth in orbit, eighth small, not as large as the loreal, longer than high, seventh and ninth large, one anteorbital, two postorbitals, infralabials 10, two pairs of submentals. The maxillary teeth increase in size backward; the posterior one is grooved. A dorsal band of brown occupies five scales, and a half scale at each side of these; a light line

at each side of the dorsal band includes two entire and two half-scales, and the brown band at the lower edge of each flank covers the three outer rows, the half of the fourth, and the ends of the ventral scutes. In the dorsal band there are two narrow streaks of light color, on the middle of the scale, and on the lower band of the flank there are three similar streaks, the upper two of which are close together. On each side of the nape there is an oblong area of lighter color surrounded by dark, and the outer portions of the temporals are lighter. The dark brown of the middle of the crown extends forward on the frontal, forming a trident with the prongs in front, ending on the prefrontals. A dark band passes through the eye to the neck; below this a light band passes back into the pair of white streaks in the second and third rows of scales. Lips, chin and throat thickly freckled with brown. A peculiar feature of this snake is the smallness of the eighth labial as compared with the ninth or the seventh. It is longer than high and lies below the lower temporal which is larger than the upper and passes downward between the seventh labial and the ninth to the eighth. The specimen is alike on both sides of the head.

OXYBELIS AENEUS Wagl.

Labials seven to eight; infralabials nine. From Posorja.

CNEMIDOPHORUS LENTIGINOSUS sp. n.

Head narrow. Nostril anterior to the nasal suture. Each of the outer parietals transversally divided into three. Four supraoculars, the posterior two and half of the second separated from the frontal and the fronto-parietal by a line of granules, six to seven supraciliaries, a freno-orbital, median gular scales enlarged, mesoptychium with four or five rows of enlarged scales, smaller but not gran-

ular toward the edge of the collar. Dorsal granules small, uniform. Ventral plates in ten longitudinal and about thirty-four transverse series. Five large plates forming a triangle, from the vent $2 + 2 + 1$, at each side of which there is a series of five smaller ones. Three or four rows of brachials, anterior largest and continuous with the largest, posterior, of the two rows of antebrachials. Eight to ten rows of femorals, two or three of which are large; tibials in three rows, outer largest. Femoral pores twenty to twenty-one on each side. Male without anal spines. Caudal scales slightly oblique, carinate, subtruncate posteriorly. Length of body, 4.25, of tail, 7.75 inches.

Back olive brown, tinted with red anteriorly; upper surface of body and limbs and sides of head thickly sprinkled with small rounded spots of yellowish or white, apparently arranged in both longitudinal and transverse series; top of head lighter brownish, uniform; a series of spots from ear to rostral on the labials; lower surface olive, reddish on chest and folds, yellowish under legs, tail and hinder parts of abdomen. A faintly indicated light streak extends from the supraciliaries back above the hips.

Hab. San Francisco de Posorja.

AMEIVA EDACANTHA Boc.

A small posterior, fourth, supraocular is present in each case. Supraciliaries five to six. Granules scarcely intervening between fronto-parietal and supraocular. Pores twelve to thirteen. Throat of male red-tinted. Males with six large and several smaller spines in each group at the sides of the preanals.

Hab. Posorja.

IGUANA TUBERCULATA Laur.

Secured at Posorja.

TROPIDURUS OCCIPITALIS Pet.

Tropidurus (Lamoprists) occipitalis Peters, 1871,
M. B. Berl. Akad., 645.

Aneuporus occipitalis Bocourt, 1874, Miss. Sci. Mex.,
Rept., 215, pl. xviii, fig. 1.

Craniopeltis occipitalis Cope, 1876, Jour. Phil. Ac.,
(2), VIII, 173.

Tropidurus occipitalis Boulenger, 1885, Cat. Liz., II,
173.

Tropidurus Bocourti Boulenger, 1885, Cat. Liz., II,
173.

On the shields of the snout the keel is very feeble or absent. The supraorbitals have faint striæ. Frequently, especially in the young, the occipital black spot is bordered by white. The dorsal crest is very prominent on old males; it is less so on the females, and is indicated by broad scales with a median keel, but without the acuminate point, in the young. On the larger ones there are four (4-6) acute scales on the front margin of the ear. Behind the arm, extending back along the flank the male in life has a group or band of red spots. The females and the young do not show this but they have a narrow band of lighter color from the upper edge of the arm to that of the thigh. The humeral fold is usually black inside. Females and young have the fold in front of this of a brilliant red color. On the female the dorsal blotches are much reduced and less distinct. On the male the four blotches of the scapular region are large and jet black. The young ones have eight or nine moderately distinct transverse bands of brown between the nape and the base of the tail, the series becoming more faint as continued farther back. The two light bands along each flank are very distinct on the young.

Young ones closely resemble *Scelopori* in appearance and coloration.

Bocourt's genus *Aneuporus* appears to have been founded on the female of this species. Cope's *Craniopeltis* is apparently the same. From their descriptions Boulenger was led to found the species *T. Bocourtii*, which, from the evidence of Dr. Baur's specimens, becomes a synonym of *T. occipitalis* of Peters.

From San Francisco de Posorja, on the north side of the gulf, between Guayaquil and Point St. Helena.

PHYLLODACTYLUS TUBERCULOSUS Wieg.

From Guayaquil.

Mus. Comp. Zool. Feb., 1892, Cambridge, Mass.